Report Date: 30 Jun 2014

Summary Report for Individual Task
551-88L-2047
Maintain a Fire Extinguishing System
Status: Approved

Condition: Given an operational fire extinguishing system aboard a vessel, at sea, at anchor or moored alongside a pier, day or night, under all sea and weather conditions, while wearing appropriate PPE, (i.e. hearing protection, Nitrile gloves, eye protection, etc.), with a lock out tag out kit, marine rail tool box.

Standard: The Soldier correctly maintains a fire extinguishing system aboard an Army vessel, IAW the appropriate Technical Manuals and local SOPs, without injury to self or others and without damage to equipment. The fire extinguishing system fully mission capable at task completion.

Special Condition: None

Safety Risk: Medium

MOPP 4:

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: None

Performance Steps

1. Perform monthly inspection of fire pump, emergency fire pump and fire/ballast pump suction, discharge and cross connect valves.

a. Cycle all fire pump suction, emergency fire pump and fire/ballast pump discharge and cross connect valves, 3 times, to determine proper operation.

(1) Ensure valve handle is securely attached to valve stem.

(2) Ensure valve stem moves with valve handle.

(3) Ensure valve stem and handle rotate a full 90 degrees.

(4) Ensure valve locking mechanism moves freely and engages locking plate securely in the open and closed position.

b. Check fire pump, emergency fire pump and fire/ballast pump suction, discharge and cross connect valve bodies.

(1) Check around stem for signs of leakage and/or salt build up.

(2) Check the area where the valve body and flange meet for signs of leakage and/or salt build up.

(3) Check the flange bolts for tightness.

c. Return the pump suction, discharge and cross connect valves to normal operating positions.

d. Ensure overboard discharge valve is in the open position.

2. Perform monthly cleaning of fire pump, emergency fire pump, fire/ballast pump and fire/monitor/bilge foam blanketing pump strainers(refer to Figure 551-88L-2047_01).

a. Lock out and tag out fire pump being serviced.

b. Close strainer suction and discharge valves.

c. Open the strainer vent valve (if equipped).

d. Remove drain plug (item 6 of Figure 551-88L-2047_01) to relieve pressure in the strainer.

e. When pressure has been relieved, loosen the yoke assembly (item 1 of Figure 551-88L-2047_01).

f. Swing yoke assembly clear of the strainer body (item 5 of Figure 551-88L-2047_01).

g. Remove the strainer cover (item 2 of Figure 551-88L-2047_01).

h. Remove strainer basket (item 4 of Figure 551-88L-2047_01).

i. Clean the strainer.

j. Inspect the strainer basket for holes or tears, replace basket as required.

k. Place the cleaned strainer basket squarely on the basket seat in the strainer body.

(1) Make sure that the basket is seated firmly.

(2) Make sure that the basket handle is sufficiently high to be compressed by the cover.

l. Clean the seal surface and inspect the cover and cover gasket/O-ring (item 3 of Figure 551-88L-2047_01).

(1) Renew the cover if it is warped, cracked or damaged.

(2) Renew the gasket/O-ring if it is cut, scratched or cracked.

m. Replace the cover onto the strainer body.

n. Swing yoke assembly over the cover.

o. Tighten the yoke assembly.

(1) Do not use pry bar, hammer or other tools to tighten yoke assembly as damage to the yoke assembly or cover may occur.

(2) Yoke assembly should be hand tight only.

p. Install the drain plug.

q. Open the suction and discharge valves.

(1) Close the strainer vent valve when air is expelled and liquid begins to flow.

(2) If strainer does not have a vent valve, loosen the cover yoke assembly.

(a) Do not swing yoke assembly from the cover.

(b) Once air is purged and water flows from the cover, tighten yoke assembly.

r. Check strainer for leaks.

s. Remove the lockouts and tag outs.

t. Return strainer to normal readiness position.

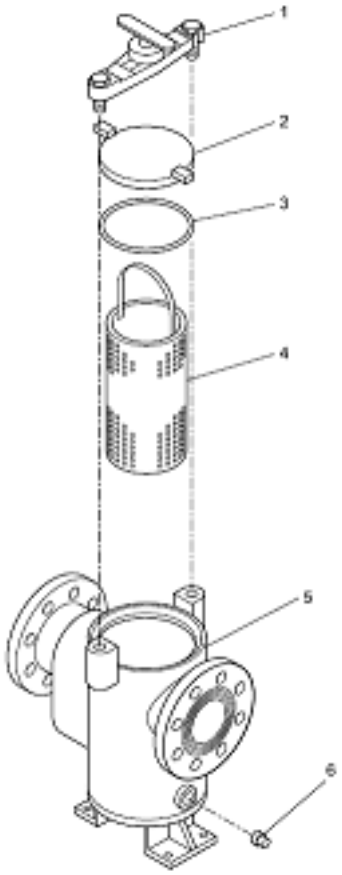

Figure 551-88L-2047_01
Fire pump strainer

3. Perform monthly test of all fire pumps, emergency fire pump and fire/ballast pumps (if applicable).

    a. Energize all fire pumps, emergency fire pump and fire/ballast pump one at a time.

        (1) Test main fire pumps, emergency fire pump and fire/ballast pump (if applicable).

        (2) Ensure pumps are providing proper water pressure as per ships technical manuals.

    b. Return all pumps to normal readiness position.

4. Perform quarterly inspection of fire station plug valves.

    a. Inspect all fire plug valves at the fire stations.

    b. Disconnect hose from fire plug.

    c. Cycle each fire plug valve, 3 times, to determine proper operation.

        (1) Ensure valve handle is securely attached to valve stem.

        (2) Ensure valve fully opens and closes by visually checking for movement inside the valve body.

    d. Check fire plug valves bodies.

(1) Check around stem for signs of leakage and/or salt build up.

(2) Check the valve body, for signs of leakage and/or salt build up.

(3) Check the flange for signs of leakage and/or salt build up.

(4) Check the flange bolts for tightness.

e. Close all fire plug valves.

f. Reconnect fire hoses.

g. With the No. 1 fire pump running, at the fire plug(s) being observed.

(1) Disconnect fire hose.

(2) Check for water discharge from fire plug.

(3) Reconnect fire hose.

h. Secure No.1 Fire Pump.

i. Return all fire stations to normal readiness position.

5. Perform preventive maintenance checks and services for Engine Room Water Washdown System (ERWWS), (refer to Figure 551-88L-2047_02).

a. Perform weekly control valve preventive maintenance.

(1) Charge fire main to operating pressure.

(2) Perform a visual inspection to verify the control valve for the ERWWS is free of leaks.

(3) If leaks are discovered, repair control valve.

b. Perform monthly preventive maintenance.

(1) Control valve.

(a) Verify fire main is not charged.

(b) Inspect control valve handle locking mechanism to ensure it is free and operates properly.

(c) Exercise ERWWS control valve by unlocking valve handle and operating control valve through two (2) openings and closings.

(d) Close valve and verify lock is engaged.

(e) If control valve fails to operate, repair or replace valve.

(2) Strainer blow off.

(a) Verify fire main is not charged.

(b) Exercise ERWWS strainer blow off valve through two (2) openings and closings.

(c) Leave ERWWS strainer blow off valve in close position.

(d) If valve fails to operate, replace valve.

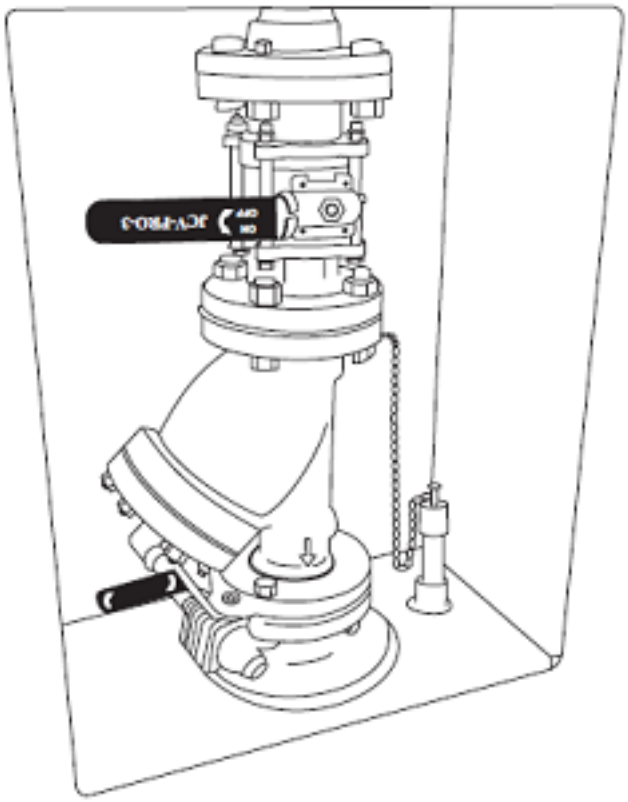

Figure 551-88L-2047_02
ERWWS Control Valve

6. Perform preventive maintenance of the Aqueous Film Forming Foam (AFFF) System.

a. Perform weekly maintenance.

(1) Check AFFF tank for leaks.

(2) Check the level in the tank. Fill as required with Ansulite 3x3 Low Viscosity Alcohol Resistant Concentrate.

(3) Operate the pump and check pump operates correctly.

(a) AFFF pump.

_1_ Inspect the pump for Class III leaks and/or excessive vibrations.

_2_ If Class III leakage is observed, report to supervisor or unit maintenance.

(b) AFFF pump motor.

_1_ Check that the motor is running within normal ambient operating temperature, 104-131ºF (40-55ºC).

_2_ Check the motor frame and bearings, where possible, for excessive noise, and/or vibration.

(4) Inspect the tank vent.

(5) Ensure the insect screen is in place and clean.

b. Perform visual checks while in use.

(1) AFFF pump.

(a) Inspect the pump for Class III leaks and/or excessive vibrations.

(b) If Class III leakage is observed, report to supervisor or unit maintenance.

(2) AFFF pump motor.

(a) Check that the motor is running within normal ambient operating temperature, 104-131ºF (40-55ºC).

(b) Check the motor frame and bearings, where possible, for excessive noise, and/or vibration.

c. Perform after use maintenance.

(1) After the foam blanket system has been used, run pump and flush pump and system with clean seawater to remove foam.

(2) Check the level in the tank. Fill as required with Ansulite 3x3 Low Viscosity Alcohol Resistant Concentrate.

(3) Inspect the strainer for debris. Clean as required.

(4) Flush foam proportioner with clean seawater to remove foam.

(5) Flush system with clean seawater to remove foam using the fire monitor/bilge foam blanketing pump.

7. Perform preventive maintenance of the Gaylord Hood Ventilation System.

a. Perform daily maintenance.

(1) Clean the grease extraction filters.

(2) Empty and clean the grease drain and cups.

(3) Clean all interior and exterior surfaces of the hood using a mild detergent solution.

(4) Check the fire suppression system for loose pipes and missing or grease covered nozzle caps, (refer to Figure 551-88L-2047_03).

(a) Make sure the nozzle caps are in place over the ends of each nozzle.

(b) Make sure the caps are not brittle.

(c) Clean as required.

(d) Check that the fire suppression system metal blow off caps can be turned freely on the nozzle.

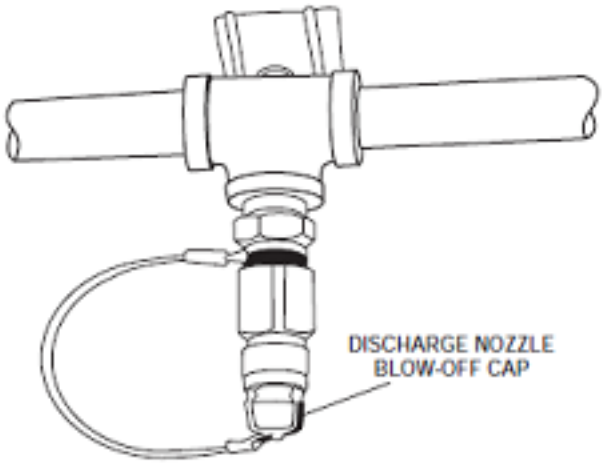

Figure 551-88L-2047_03
Gaylord fire suppression blow off cap

(5) Check the visual indicator on the fire suppression releasing unit to make sure that the system is cocked, (refer to Figure 551-88L-2047_04).

Figure 551-88L-2047_04
Gaylord fire suppression system

(6) Check that the manual pull station is not obstructed and is ready for operation, (refer to Figure 551-88L-2047_05).

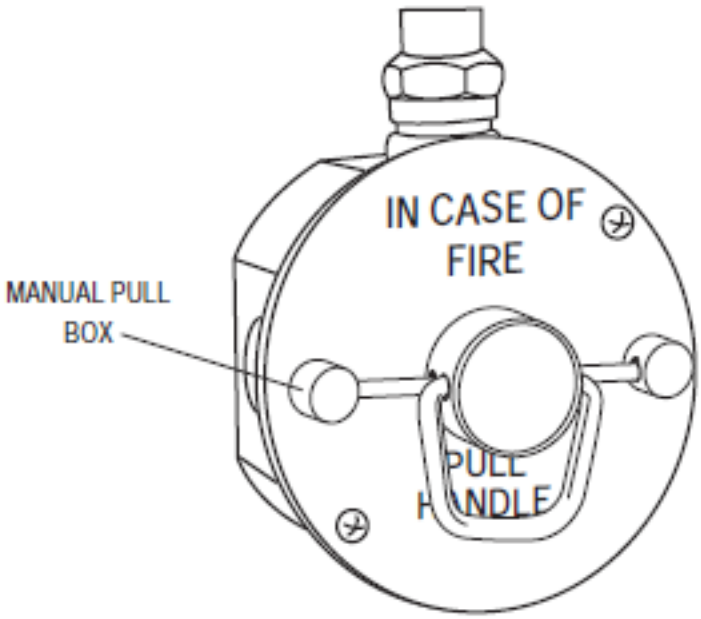

Figure 551-88L-2047_05
Typical Gaylord Hood pull station

b. Perform monthly maintenance.

(1) Check for any deterioration and/or corrosion on the fusible links and cables.

(2) At the conclusion of a wash cycle, open the inspection doors of the ventilator and check to ensure that the interior has been cleaned of grease, dust and lint.

c. Perform semi-annual preventive maintenance.

(1) Check exhaust fan for proper belt tightness, belt alignment and lubrication of necessary moving parts.

(2) Trip damper control switch to check for proper damper closure. Reset damper when test is complete.

8. Perform preventive maintenance and tests of the FM-200 Fire Extinguishing System.

a. Perform monthly preventive maintenance.

(1) Make a general inspection survey of all cylinders and equipment for damaged or missing parts.

(2) Ensure access to hazard areas, manual pull stations, discharge nozzles, and cylinders are unobstructed and that there are no obstructions to the operation of the equipment or distribution of FM-200 agent.

(3) Inspect FM-200 cylinder pressure operated control heads for physical damage, deterioration, corrosion, distortion, cracks, dirt and loose couplings.

(4) Test FM-200 cylinder weight using flexible tape liquid level indicator (if equipped).

(a) Remove the protective cap to expose the tape.

(b) Raise the flexible tape slowly until it latches.

(c) Note the reading at the point where the tape emerges from the fitting.

(d) To determine the final, more precise reading;

_1_ Repeat the above procedure.

_2_ Except when a point is reached approximately 2 inches before the tape is expected to latch, raise the tape very slowly until it latches.

(e) While supporting the weight of the tape, record the liquid level measurement.

(f) Check the ambient temperature where the FM-200 cylinders are stored and record the temperature.

(g) Refer to the appropriate calibration charts, (refer to Figures 551-88L-2047_06 thru 08).

_1_ Locate the level reading on the flexible tape scale.

_2_ Trace horizontally to the appropriate temperature plot.

_3_ Read the weight of FM-200 from the scale at the bottom of the chart.

_4_ Record the weight and date on the record tag attached to each cylinder.

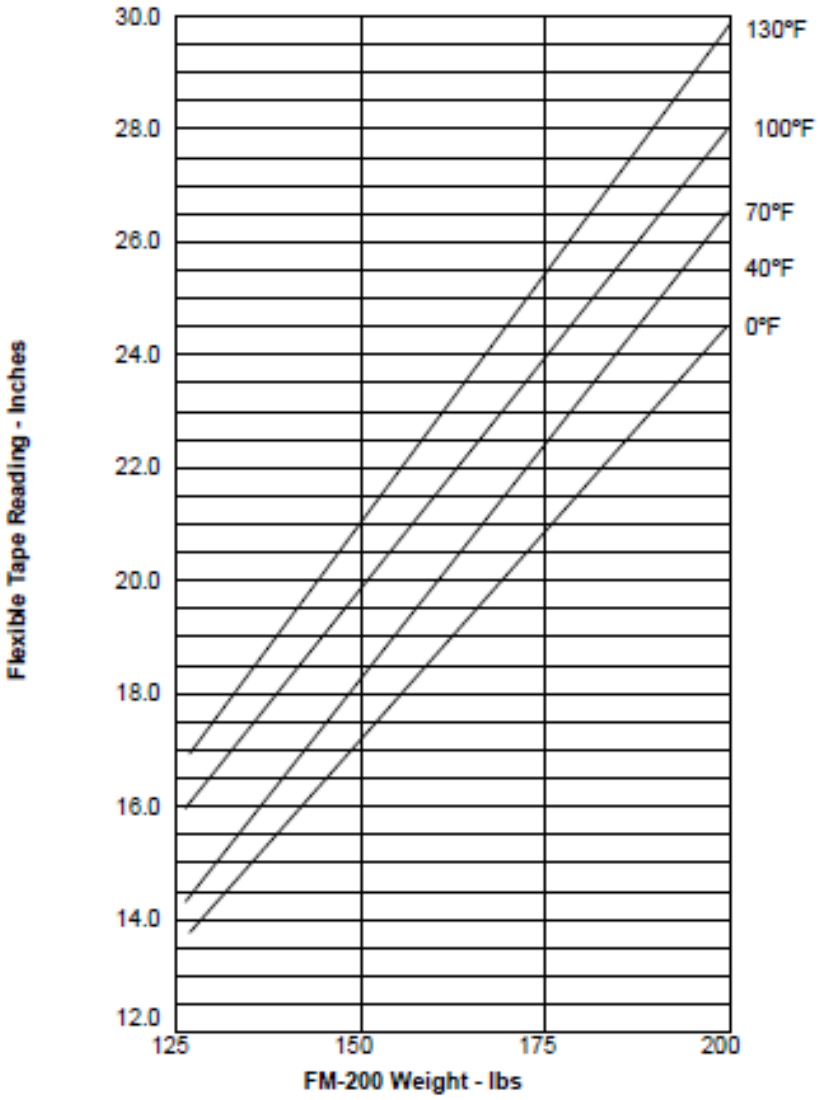

Figure 551-88L-2047_06
200 lb cylinder weight chart

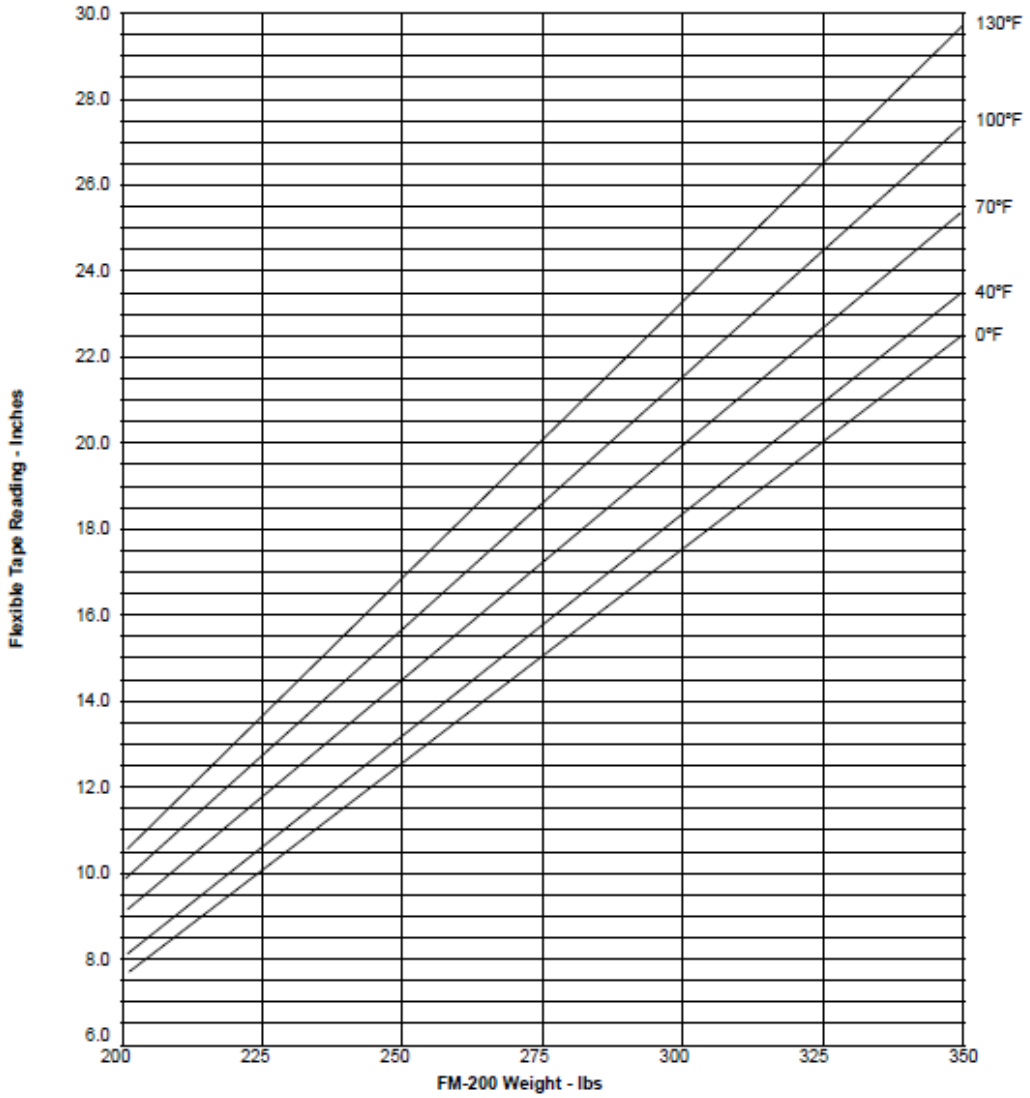

Figure 551-88L-2047_07
350 lb cylinder weight chart

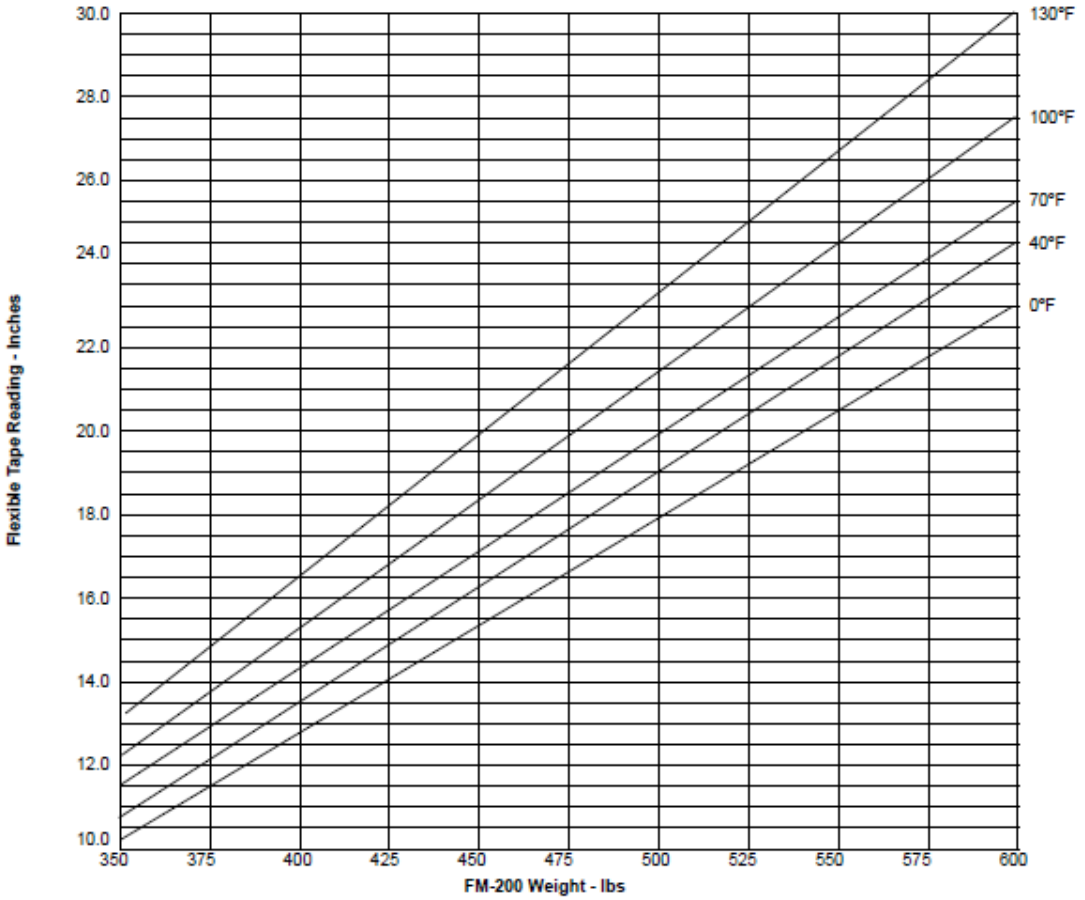

Figure 551-88L-2047_08
600 lb cylinder weight chart

(h) After the reading is taken, carefully push the tape down into the liquid indicator level housing and replace the protective cap.

(i) Report to your supervisor if the weight measured using the liquid indicator signifies that the cylinder should be recharged.

(5) Check FM-200 cylinder pressures.

(a) Cylinder operating pressure MUST be adjusted for ambient temperature in accordance with Table 1 or information found in the vessels FM-200 Fire Fighting System technical manual.

GAUGE CALIBRATION	
°F	PSI
30	285
40	300
50	320
60	340
70	360
80	380
90	405
100	425
110	445
120	475
130	500

Table 1
FM-200 Gauge calibration table

(b) Check FM-200 cylinder pressure gauges for proper operating pressure.

(c) Check nitrogen cylinder pressure gauge for proper operating pressure.

(d) If pressure loss (adjusted for temperature) exceeds 10%, report to your supervisor that the pressure reading signifies that the cylinder should be recharged.

(6) Clean FM-200 cylinders and valves.

(a) Remove dirt from metallic parts using a lint-free cloth moistened with dry cleaning solvent.

(b) Wipe non-metallic parts with clean, dry lint-free cloth.

(c) Remove corrosion with crocus cloth.

(7) Inspect and clean the flexible actuation hoses.

(a) Remove dirt from metallic parts using a lint-free cloth moistened with dry cleaning solvent.

(b) Dry parts with clean, dry, lint-free cloth or air blow dry.

(c) Wipe non-metallic parts with clean, dry lint-free cloth.

(d) Remove corrosion with crocus cloth.

(e) Inspect hoses, adaptors, couplings and tees for tightness.

(8) Inspect FM-200, CO2 and nitrogen cylinder brackets, straps, cradles, and mounting hardware for loose, damaged, or broken parts.

(a) Check cylinder brackets, straps, and associated parts for corrosion, oil, grease grime, etc.

(b) Tighten loose hardware.

(c) Replace damaged parts.

(9) Inspect and service FM-200 discharge nozzles, (refer to Figure 551-88L-2047_09).

(a) Examine discharge orifices for damage or blockage, if nozzles appear to be obstructed or damaged contact your supervisor.

(b) Remove dirt from metallic parts using a lint-free cloth moistened with dry cleaning solvent.

(c) Dry parts with a clean, dry, lint-free cloth, or air blow dry.

(d) Wipe non-metallic parts with a clean, dry, lint-free cloth.

(e) Remove corrosion with crocus cloth.

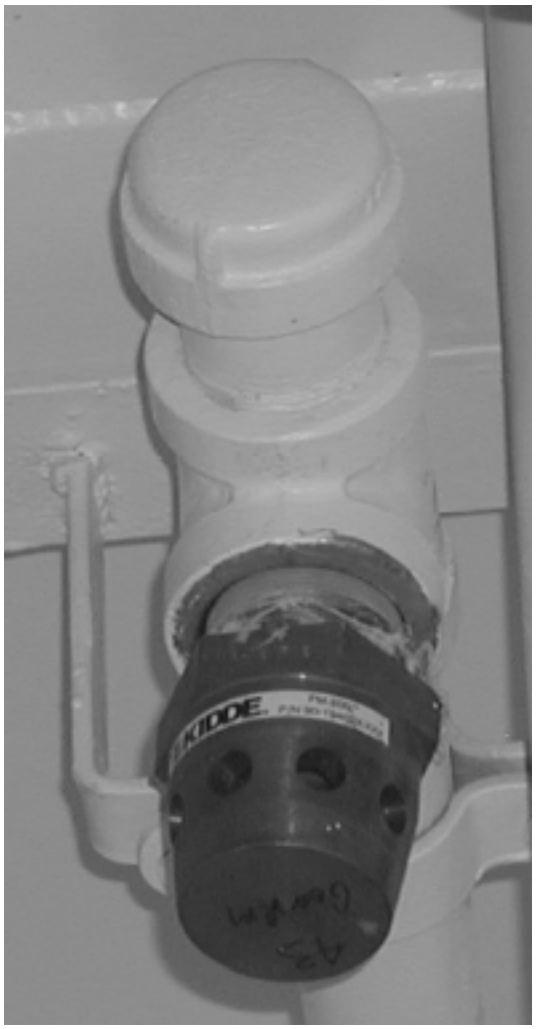

Figure 551-88L-2047_09
Typical FM-200 discharge nozzle

(10) Inspect all manual pull stations for cracks, broken or cracked glass plate, dirt or distortion, (refer to Figure 551-88L-2047_10).

(a) Inspect stations for signs of physical damage.

(b) Replace damaged glass.

(c) Replace station if damage is found.

Figure 551-88L-2047_10
Typical FM-200 pull station

(11) Clean the pull stations.

(a) Remove dirt from metallic parts using a lint-free cloth moistened with dry cleaning solvent.

(b) Dry parts with a clean, dry, lint-free cloth, or air blow dry.

(c) Wipe non-metallic parts with a clean, dry, lint-free cloth.

(d) Remove corrosion with crocus cloth.

WARNING

sconnect all cylinder control heads, discharge hoses, and flexible pilot hoses to prevent accidental system discharge.Care must be taken when removing broken or damaged glass to prevent personal injury.

(12) Replace broken glass.

(a) Place warning signs at all operating positions.

(b) Disconnect all cylinder control heads (item 1 of Figure 551-88L-2047_11), discharge hoses (item 2 of Figure 551-88L-2047_11), and flexible pilot hoses (item 3 of Figure 551-88L-2047_11) IAW vessels FM-200 Fire Fighting System technical manual.

Figure 551-88L-2047_11
Typical FM-200 cylinder

(c) Remove and retain the four cover screws (item 2 of Figure 551-88L-2047_12).

(d) Remove the front cover and break glass (item 3 of Figure 551-88L-2047_12).

(e) Install break glass and front cover.

(f) Secure the front cover using the four cover screws.

(g) Connect all cylinder control heads, discharge hoses and flexible pilot hoses.

(h) Remove warning signs.

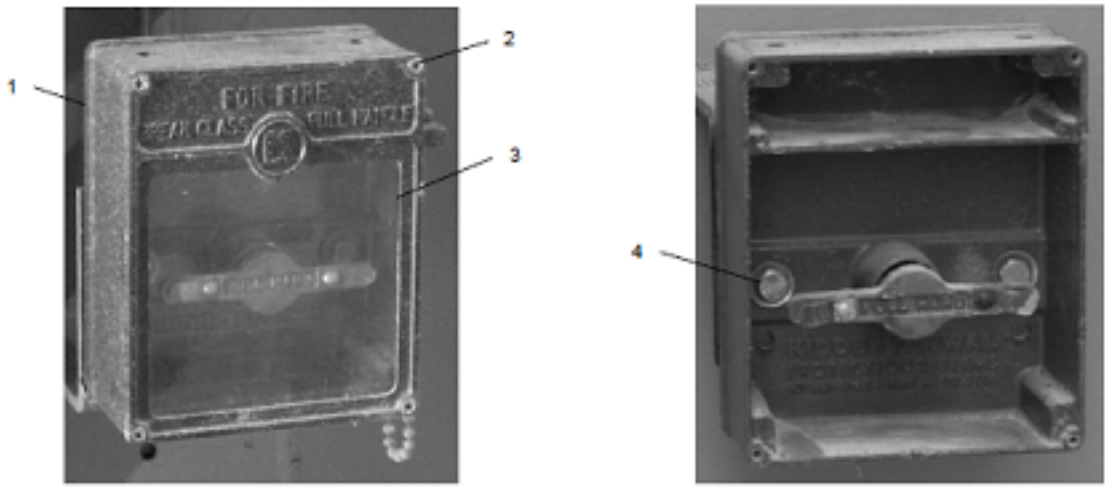

Figure 551-88L-2047_12
Typical FM-200 pull station

(13) Replace pull station.

(a) Place warning signs at all operating positions.

(b) Disconnect all cylinder control heads (refer to item 1 of Figure 551-88L-2047_11), discharge hoses (refer to item 2 of Figure 551-88L-2047_11), and flexible pilot hoses (refer to item 3 of Figure 551-88L-2047_11) IAW vessels FM-200 Fire Fighting System technical manual.

(c) Remove cover and break glass as detailed in paragraph 6.i. above.

(d) Remove and retain the two mounting screws (Item 4 of Figure 551-88L-2047_12).

(e) Carefully remove the pull station box.

(f) Disconnect cable from rear of pull station box.

(g) Connect cable to rear of pull station box.

(h) Install the pull station box, and secure with the two countersunk mounting screws.

(i) Install cover and break glass as detailed in paragraph 6.i. above.

(j) Connect all cylinder control heads, discharge hoses and flexible pilot hoses.

(k) Remove warning signs.

b. Perform Quarterly preventive maintenance.

(1) Operate and service engine room supply air dampers, port and starboard.

(2) Operate and service engine exhaust air dampers, port and starboard.

(3) Operate and service tunnel watertight vent closures.

c. Perform Semi-Annually FM-200 pressure switch test.

(1) Contact appropriate personnel and obtain authorization for shutdown.

(2) Ensure all diesel engines and powered ventilation system shutdowns are in operation.

(3) Manually raise plunger on pressure switches.

(4) Confirm automatic shutdown of operating engines and ventilation systems.

(5) Confirm activation of warning lights, electric horn/strobe and warning bells.

(6) Reset plunger on pressure switch to SET position.

(7) Re-activate all systems shut down by pressure switch (power and ventilation systems, compressors, etc.).

(8) If any warning lights, electric horn/strobe or warning bells fail to operate, repair the component.

(9) If ventilation system or engines fail to shutdown automatically, submit work order to General Support (GS) Maintenance.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: None

Evaluation Preparation: None

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Performed monthly inspection of fire pump, emergency fire pump and fire/ballast pump suction, discharge and cross connect valves.			
a. Cycled all fire pump suction, discharge and cross connect valves 3 times.			
b. Checked all fire pump suction, discharge and cross connect valve bodies.			
c. Ensured overboard discharge valve was in the open position.			
2. Performed monthly cleaning pump strainers.			
a. Fire pump.			
b. Emergency fire pump.			
c. Fire/ballast pump.			
d. Fire/monitor/bilge foam blanketing pump.			
3. Performed monthly test of pumps.			
a. Fire pump.			
b. Emergency fire pump.			
c. Fire/ballast pump.			
4. Performed quarterly inspection of fire station plug valves.			
a. Inspected all fire plug valves.			
b. Cycled each fire plug valve 3 times.			
c. Checked fire plug valves bodies.			
d. Checked for water discharge from closed fire plug valve with fire pump running.			
5. Performed preventive maintenance of the Engine Room Water Washdown System (ERWWS).			
a. Performed weekly control valve preventive maintenance.			
b. Performed monthly preventive maintenance.			
c. Stated from memory maintenance to be performed while system is in use.			
d. Stated from memory maintenance to be performed after system use.			
6. Performed preventive maintenance of the Aqueous Film Forming Foam (AFFF) System.			
a. Perform weekly maintenance.			
b. Stated from memory maintenance to be performed while system is in use.			
c. Stated from memory maintenance to be performed after system use.			
7. Performed preventive maintenance of the Gaylord Hood Ventilation System.			
a. Performed daily maintenance.			
b. Performed monthly maintenance.			
c. Performed semi-annual preventive maintenance.			
8. Performed preventive maintenance and tests of the FM-200 Fire Extinguishing System.			
a. Performed monthly preventive maintenance.			
b. Performed Quarterly preventive maintenance.			
c. Performed Semi-Annually FM-200 pressure switch test.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 55-1905-217-12	Operator's and Organizational Maintenance Manual: Landing Craft, Mechanized, Steel, DED, Overall Length 74 Feet, Mod 1, Mark VIII, Navy Design LCM-8, Hull Nos. 8500-8560 and 8580-8618 (NSN 1905-00-935-6057) (Reprinted W/Basic Incl C1-3)	No	No
	TM 55-1905-219-14-1	OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL FOR LANDING CRAFT UTILITY (LCU) 1667-1670 (NSN 1905-00-168-5764)	No	No
	TM 55-1905-219-14-2	OPERATORS, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL FOR LANDING CRAFT UTILITY, LCU 1667-1670 (NSN 1905-00-168-5764)	No	No
	TM 55-1905-219-34P-1	DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS) FOR LANDING CRAFT UTILITY LCU 1667 THRU 1670 (NSN 1905-00-1	No	No
	TM 55-1905-219-34P-2	DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS) FOR LANDING CRAFT UTILITY LCU 1667 THRU 1670 (NSN 1905-00-16	No	No
	TM 55-1905-223-10	Operator's Manual for Landing Craft, Utility (LCU 2000 CLASS) (NSN 1905-01-154-1191) (Reprinted W/Basic Incl C1-9) (This item is included on EM 0273)	No	No
	TM 55-1905-223-24-12	UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FIRE PUMP SUPSYSTEM FOR LANDING CRAFT UTILITY (LCU) (NSN 1905-01-154-1191) (REPRINTED W/BASIC INCL C1-2) (THIS I	No	No
	TM 55-1905-223-24-13	UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS BILGE/BALLAST PUMP FOR LANDING CRAFT UTILITY (LCU) (NSN 1905-01-154-1191) (REPRINTED W/BASIC INCL C1-2) (THIS IT	No	No
	TM 55-1905-223-24-18-1	UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR LANDING CRAFT, UTILITY (LCU) BASIC CRAFT (PART 1) (NSN 1905-01-154-1191) (REPRINTED W/BASIC INCL C1-3) (THIS	No	No
	TM 55-1905-223-SDC	SHIPBOARD DAMAGE CONTROL MANUAL FOR LANDING CRAFT UTILITY (LUC) (NSN 1905-01-154-1191)	No	No

	TM 55-1905-243-24&P	UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL	No	No
	TM 55-1915-200-10	Operator’s Manual for Logistic Support Vessel (LSV) (NSN 1915-01-153-8801) (Reprinted W/Basic Incl C1-6)	No	No
	TM 55-1915-251-24&P	UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR FM-200 FIREFIGHTING SYSTEM FOR LOGISTICS SUPPORT VESSEL (LSV) (NSN 1915-01-153-8801) (THIS I	No	No
	TM 55-1915-254-10-1	OPERATOR'S MANUAL FOR LOGISTICS SUPPORT VESSEL (LSV-7 & -8)	No	No
	TM 55-1915-254-10-2	OPERATOR'S MANUAL FOR LOGISTICS SUPPORT VESSEL (LSV-7 & -8)	No	No
	TM 55-1925-254-14&P	OPERATOR, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL	No	No
	TM 55-1925-292-14&P	UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING	No	No
	TM 55-1925-294-14&P	OPERATOR, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
551-88L-3055	Troubleshoot a Fire Extinguishing System	551 - Transportation (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88L-3055	Troubleshoot a Fire Extinguishing System	551 - Transportation (Individual)	Approved

Supported Collective Tasks : None

ICTL Data :

ICTL Title	Personnel Type	MOS Data

88L20 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL2, Duty Pos: TFS, LIC: EN
88L30 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL3, Duty Pos: TFR, LIC: EN
88L40 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL4, Duty Pos: TGB, LIC: EN, SQI: O